10/8290 Shrink60

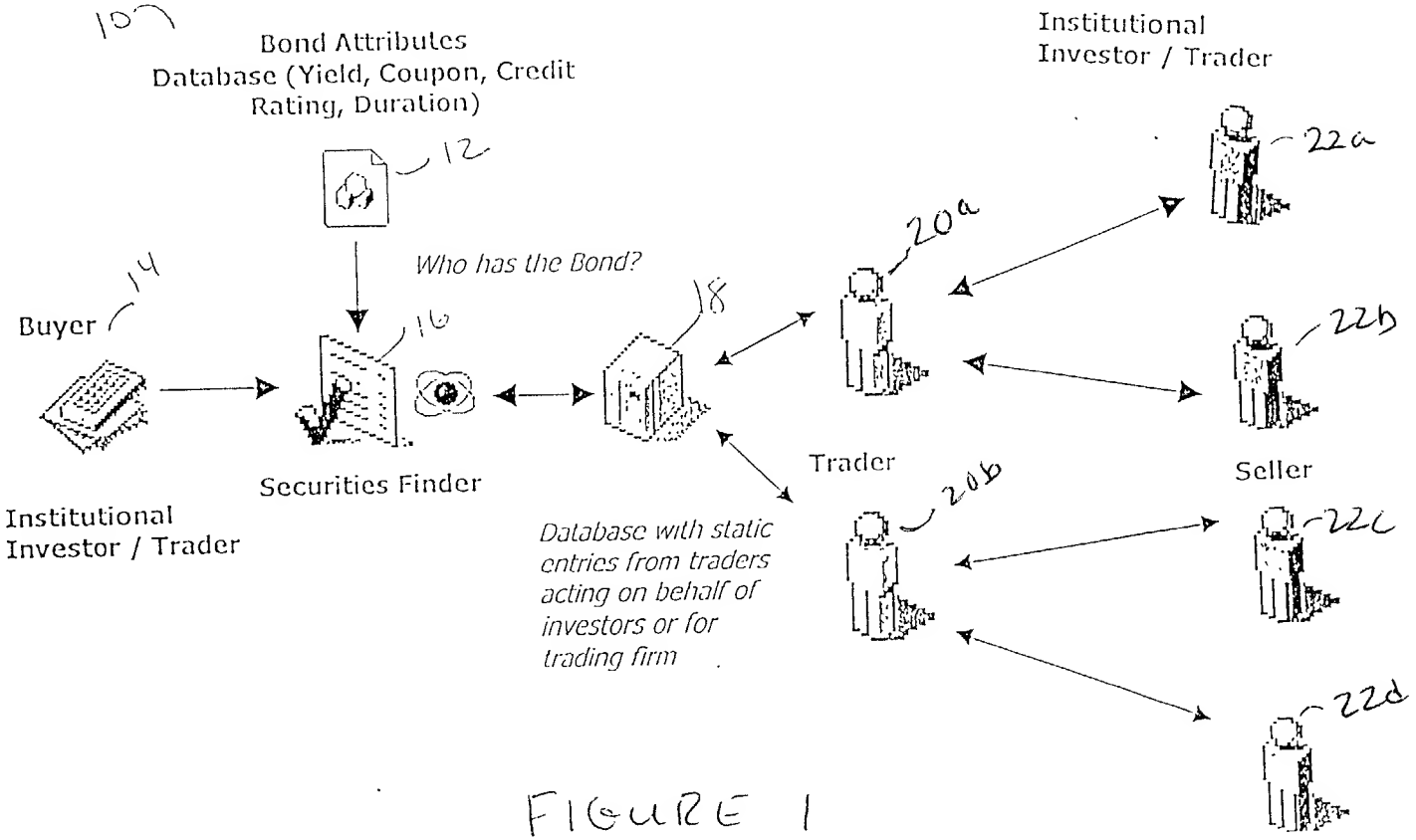


FIGURE 1

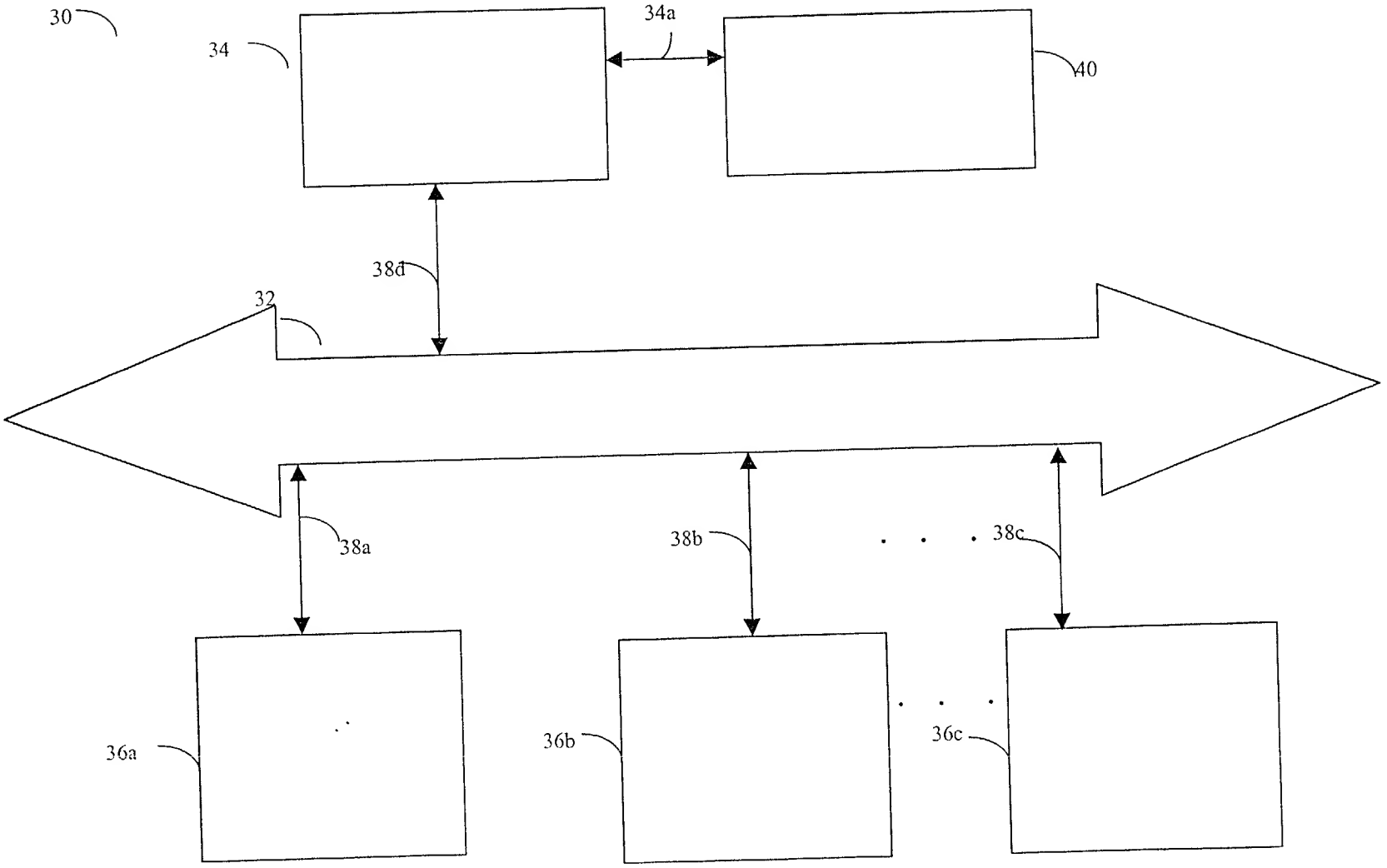


FIGURE 2

TD8280 Shaded

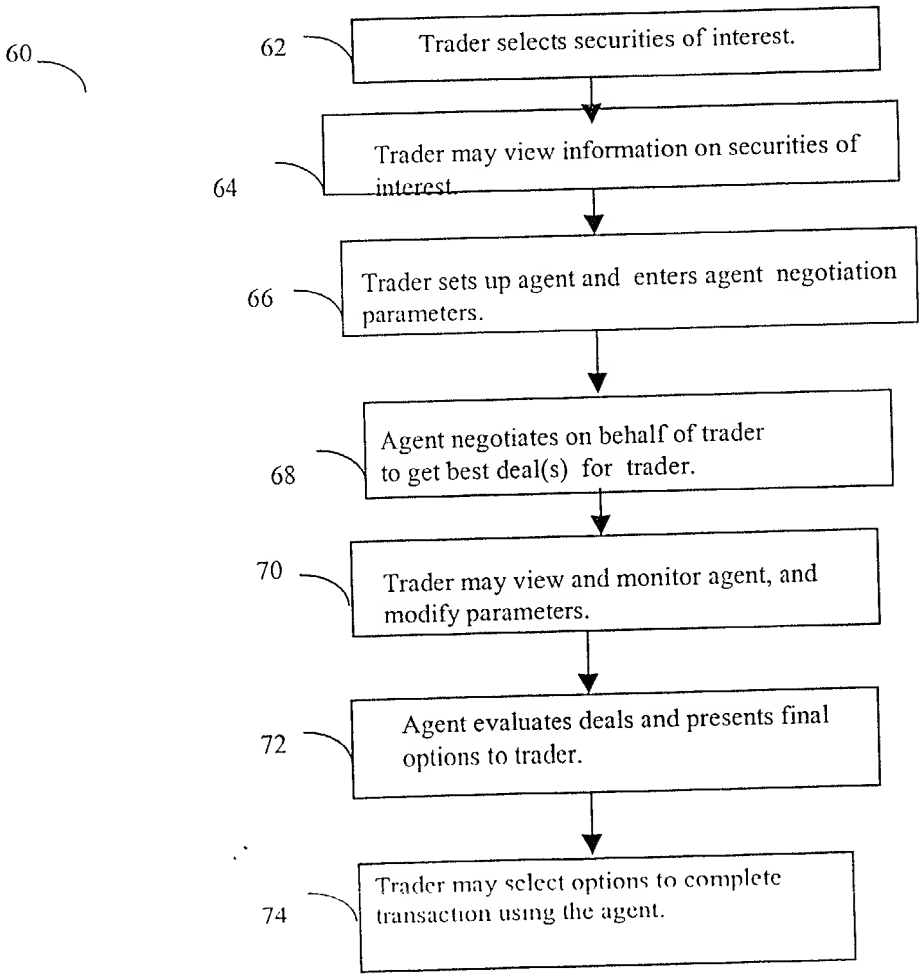


FIGURE 3

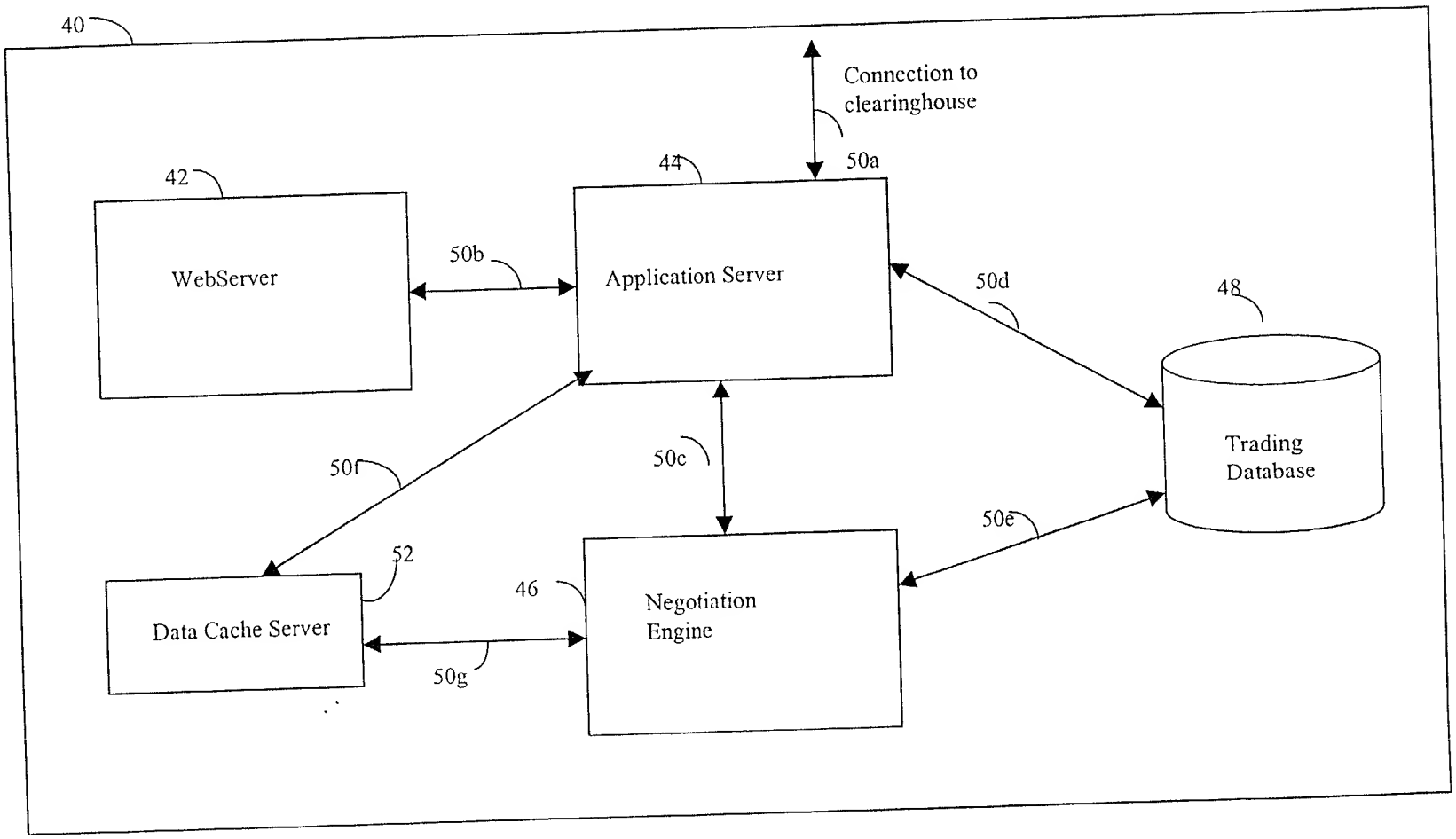

40
Connection to clearinghouse
50a
42
44
WebServer
50b
Application Server
50d
48
Trading Database
50f
50c
50e
52
46
Data Cache Server
Negotiation Engine
50g

FIGURE 4

T09280 "9h1Oh860

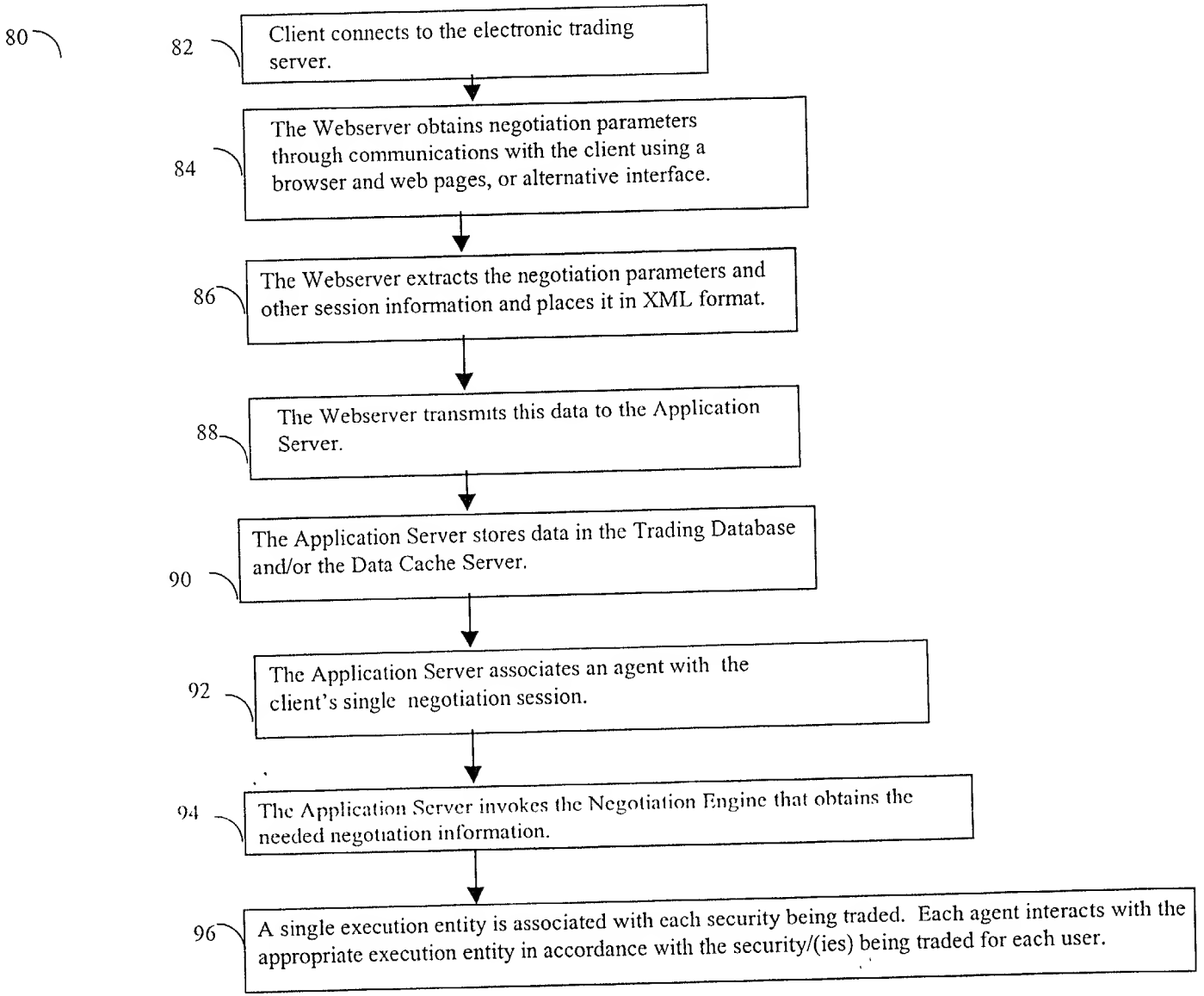


FIGURE 5

TO82SO' SMNOH:8SO

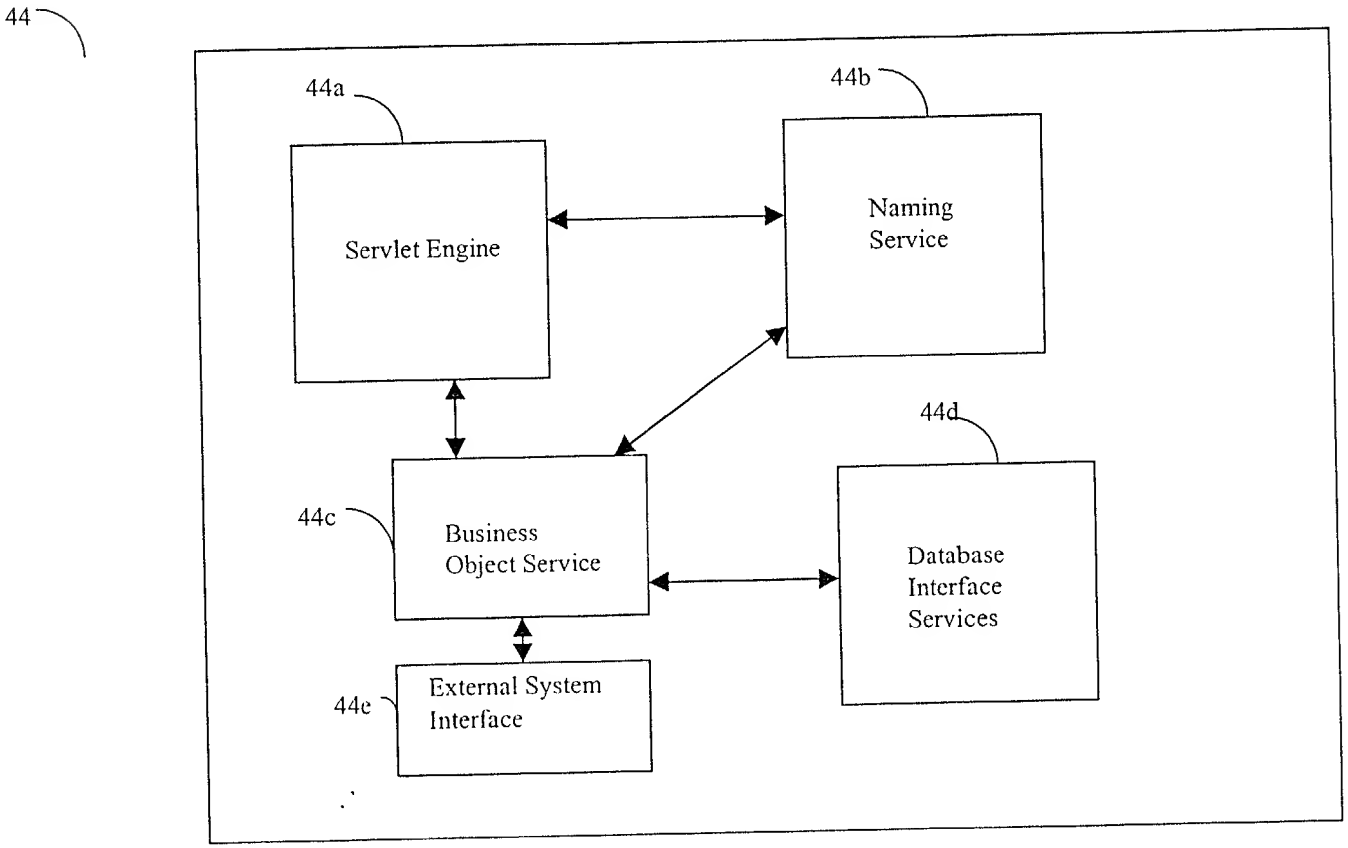


FIGURE 6

TOSZ90 9thOh60

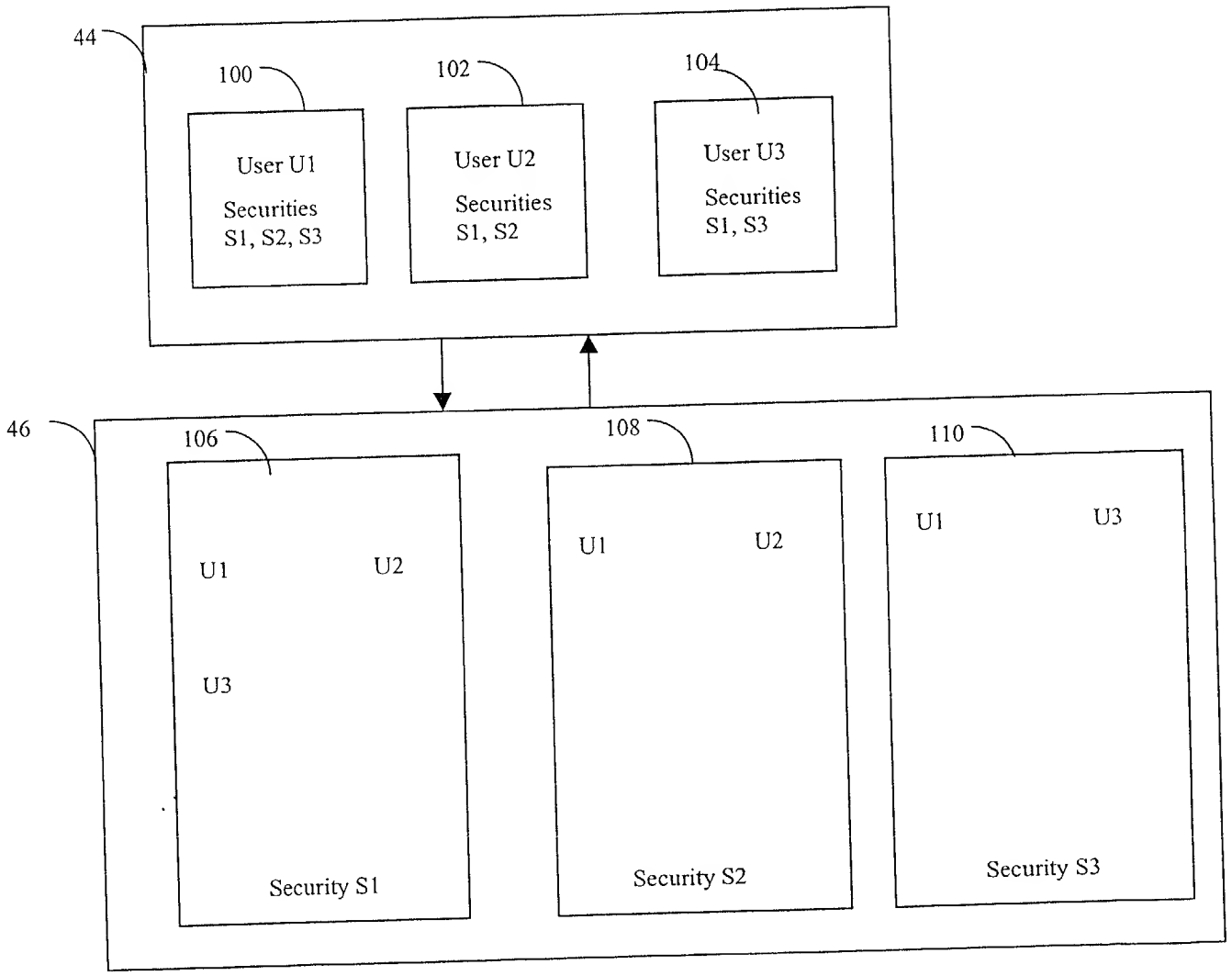
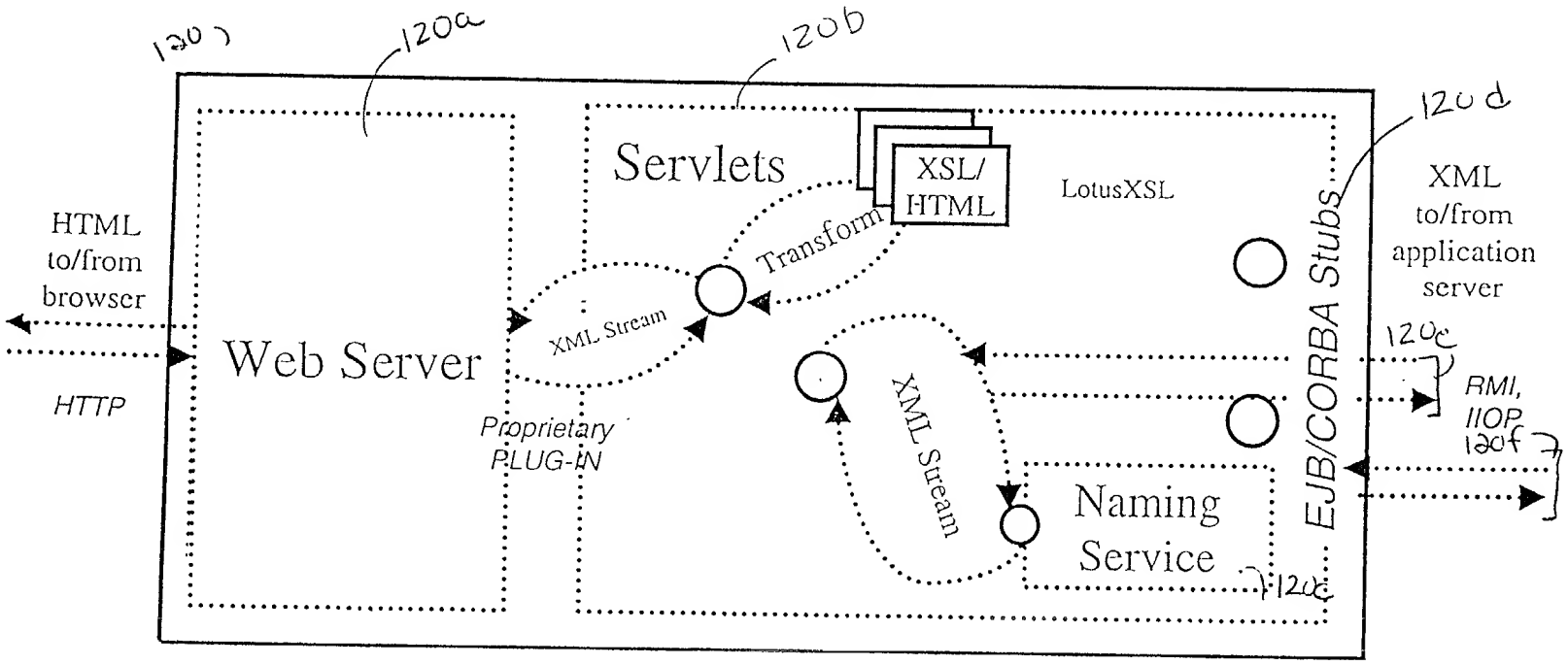


FIGURE 7

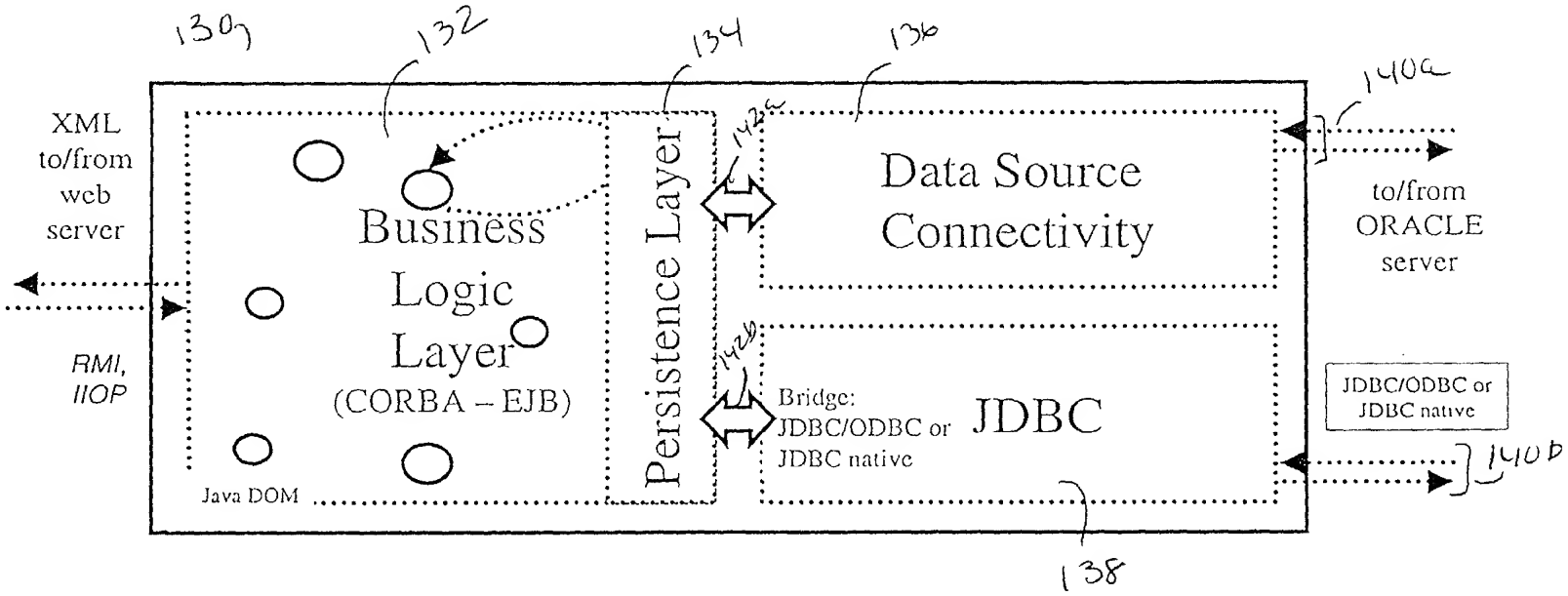
TD8290 "9th Dh960

FIGURE 8



TOS280 9h0h86

FIGURE 9



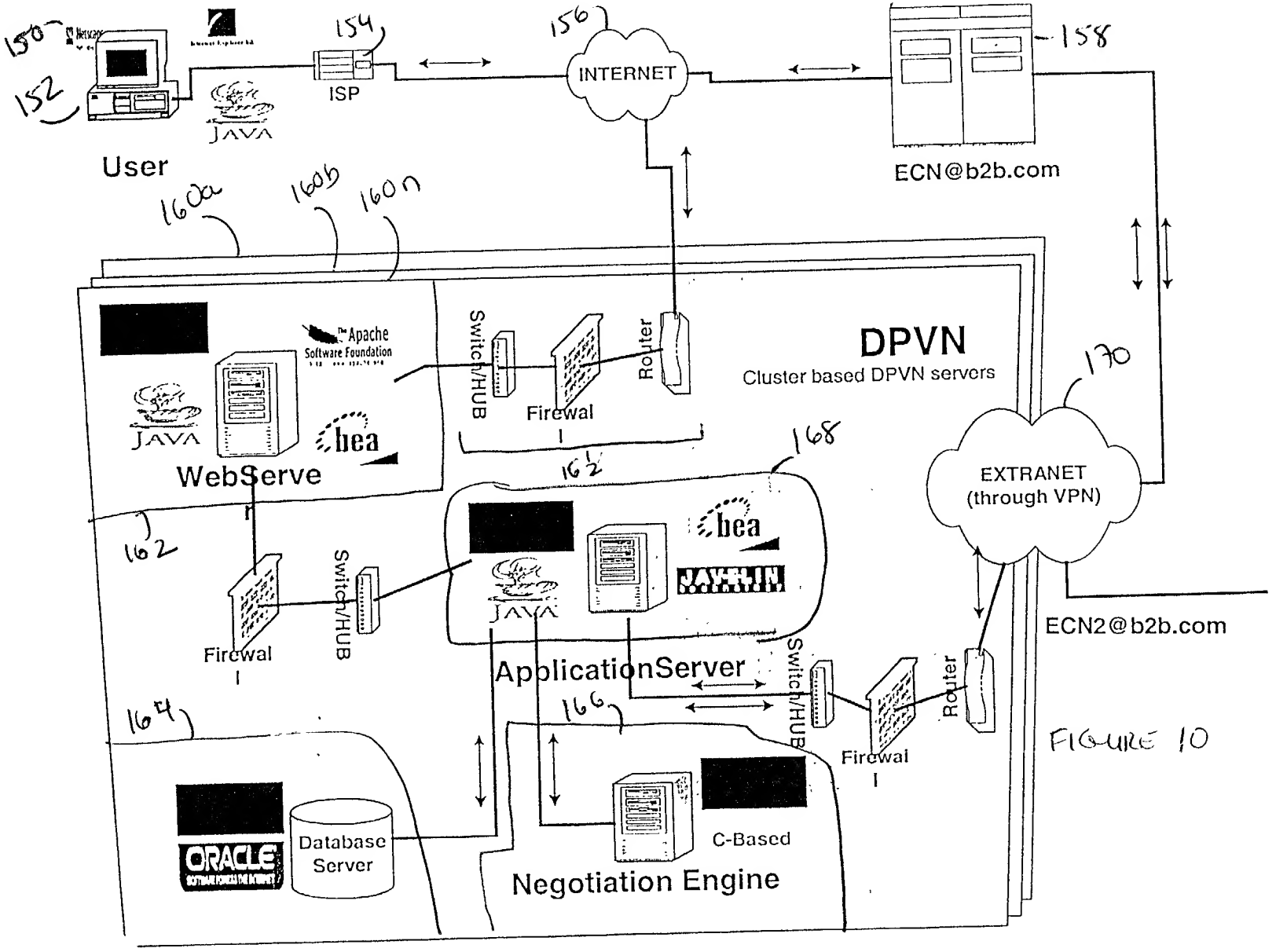

150
152
154
156
158
ISP
INTERNET
JAVA
User
ECN@b2b.com
160a
160b
160n
Apache Software Foundation
Switch/HUB
Firewal l
Router
DPVN
Cluster based DPVN servers
170
JAVA
bea
WebServe
162
168
EXTRANET (through VPN)
JAVA
bea
JAWIN
ECN2@b2b.com
Firewal l
Switch/HUB
ApplicationServer
Switch/HUB
Router
Firewal l
164
166
ORACLE
Database Server
C-Based
Negotiation Engine

FIGURE 10

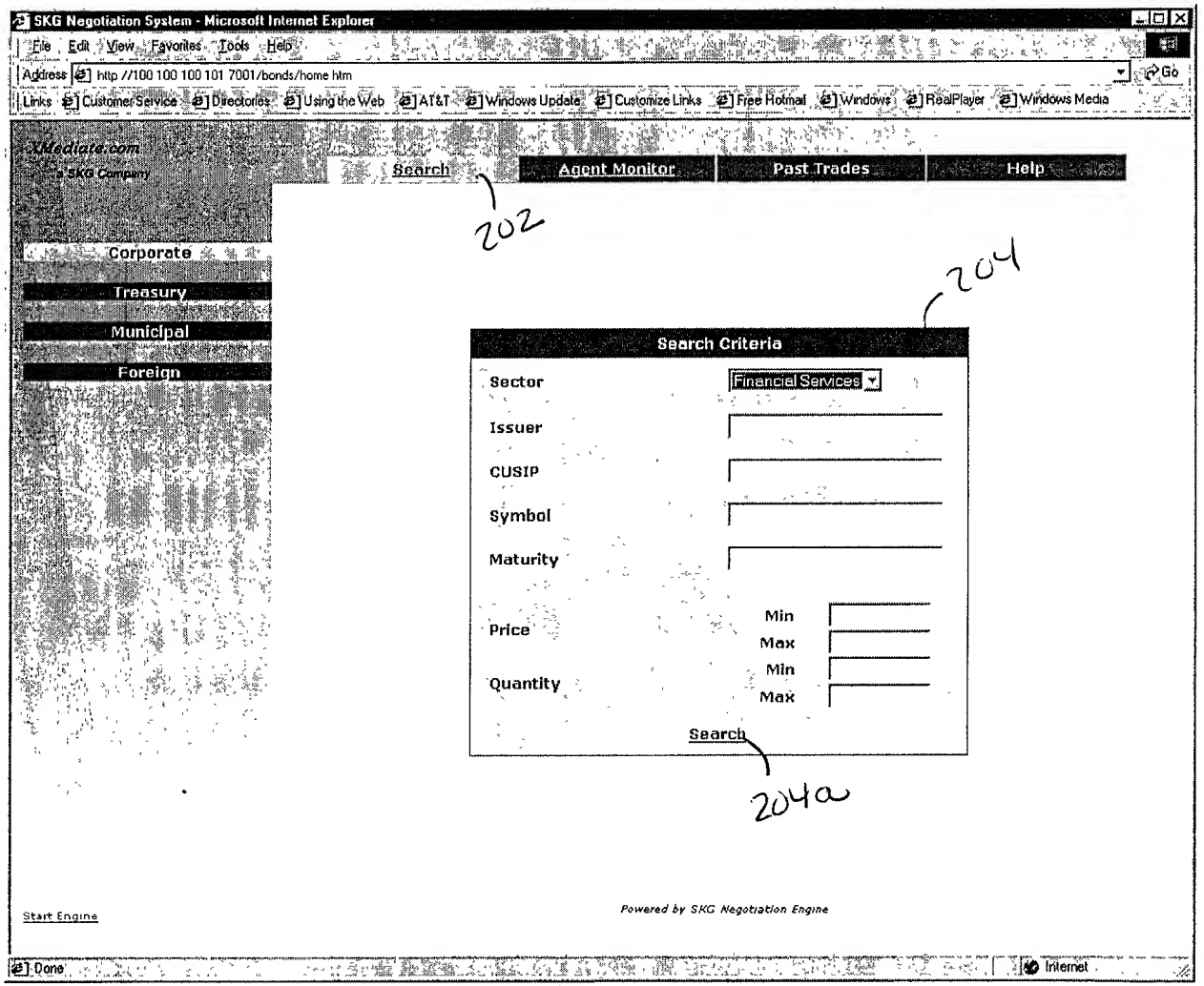

200
SKG Negotiation System - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://100.100.100.101:7001/bonds/home.htm
Links Customer Service Directories Using the Web AT&T Windows Update Customize Links Free Hotmail Windows RealPlayer Windows Media
xMediate.com
a SKG Company
Search
Agent Monitor
Past Trades
Help
202
Corporate
Treasury
Municipal
Foreign
204
Search Criteria
Sector
Financial Services
Issuer
CUSIP
Symbol
Maturity
Price
Min
Max
Quantity
Min
Max
Search
204a
Start Engine
Powered by SKG Negotiation Engine
Done
Internet

FIGURE 11

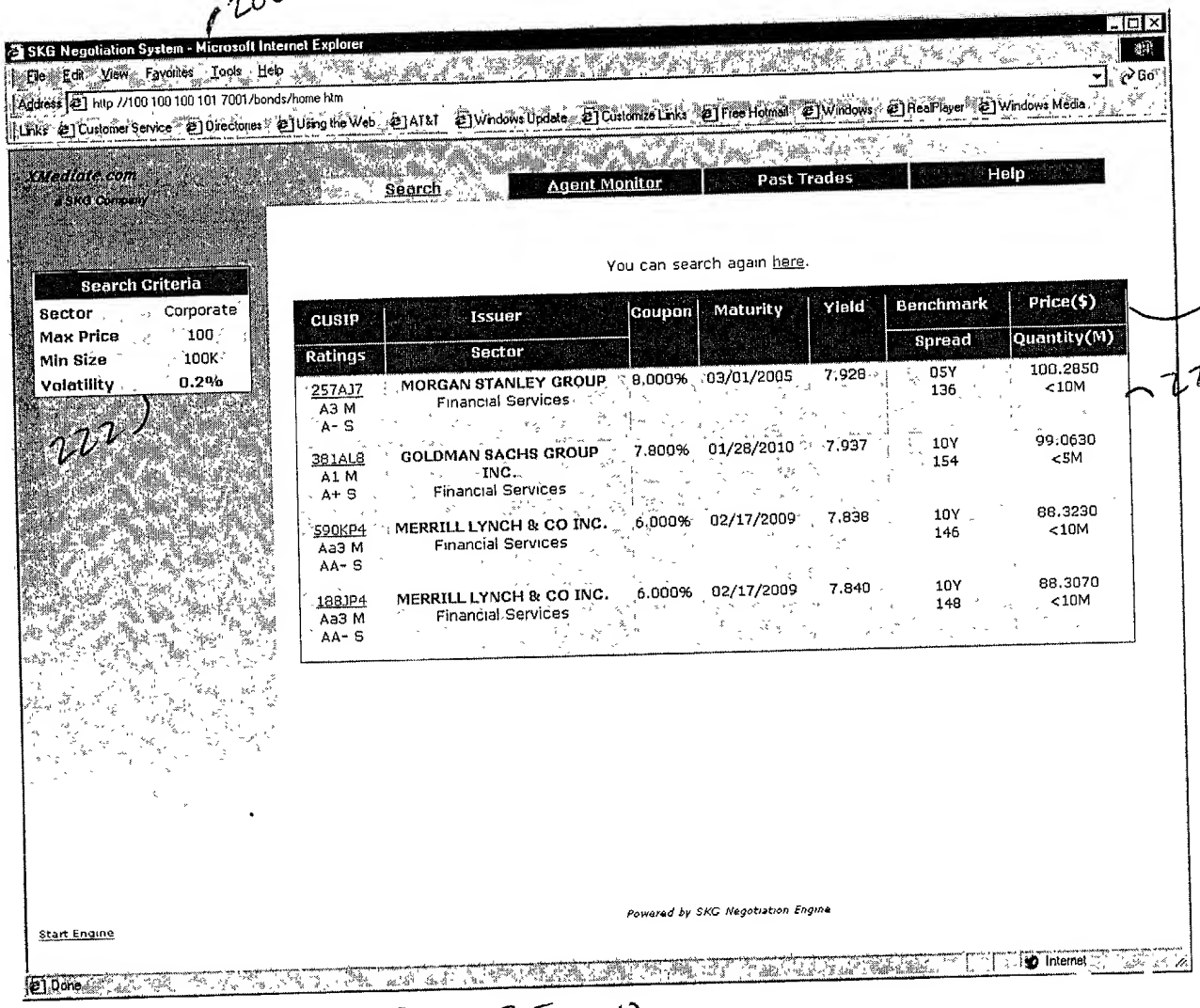
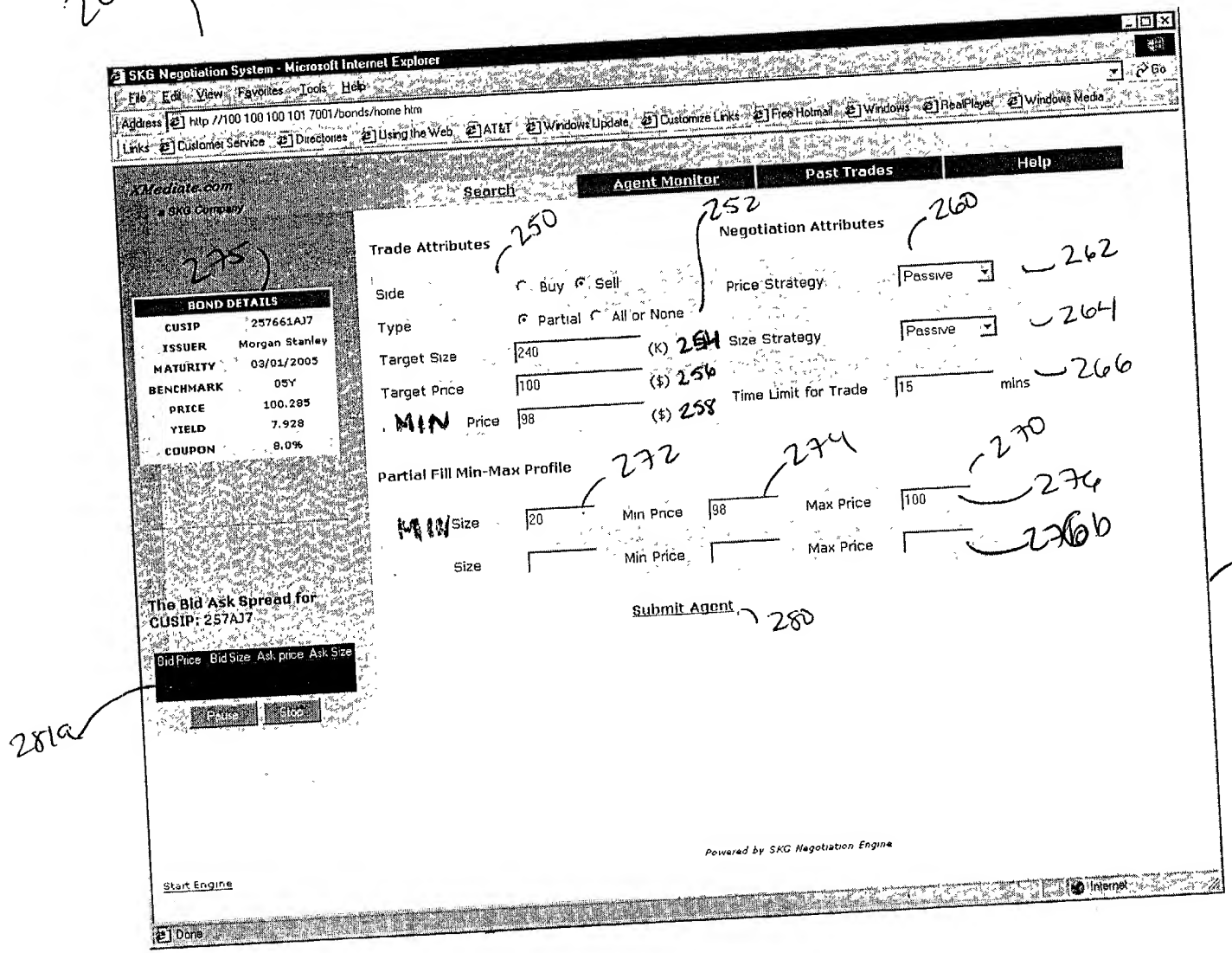

200b
SKG Negotiation System - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://100.100.100.101:7001/bonds/home.htm
Links Customer Service Directories Using the Web AT&T Windows Update Customize Links Free Hotmail Windows RealPlayer Windows Media
xMediate.com
a SKG Company
Search
Agent Monitor
Past Trades
Help
You can search again here.
Search Criteria
Sector Corporate
Max Price 100
Min Size 100K
Volatility 0.2%
222
220
224
CUSIP
Ratings
Issuer
Sector
Coupon
Maturity
Yield
Benchmark
Spread
Price($)
Quantity(M)
257AJ7
A3 M
A- S
MORGAN STANLEY GROUP
Financial Services
8.000%
03/01/2005
7.928
05Y
136
100.2850
<10M
381AL8
A1 M
A+ S
GOLDMAN SACHS GROUP INC.
Financial Services
7.800%
01/28/2010
7.937
10Y
154
99.0630
<5M
590KP4
Aa3 M
AA- S
MERRILL LYNCH & CO INC.
Financial Services
6.000%
02/17/2009
7.838
10Y
146
88.3230
<10M
188JP4
Aa3 M
AA- S
MERRILL LYNCH & CO INC.
Financial Services
6.000%
02/17/2009
7.840
10Y
148
88.3070
<10M
Powered by SKG Negotiation Engine
Start Engine
Done
Internet

FIGURE 2

FIGURE 13


200C
SKG Negotiation System - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://100.100.100.101:7001/bonds/home.htm
Links Customize Service Directories Using the Web AT&T Windows Update Customize Links Free Hotmail Windows RealPlayer Windows Media
XMediate.com
a SKG Company
Search
Agent Monitor
Past Trades
Help
275
BOND DETAILS
CUSIP 257661AJ7
ISSUER Morgan Stanley
MATURITY 03/01/2005
BENCHMARK 05Y
PRICE 100.285
YIELD 7.928
COUPON 8.0%
Trade Attributes
250
Side Buy Sell
Type Partial All or None
Target Size 240 (K)
Target Price 100 ($)
MIN Price 98 ($)
252
Negotiation Attributes
260
Price Strategy Passive
262
Size Strategy Passive
264
Time Limit for Trade 15 mins
266
Partial Fill Min-Max Profile
272
274
270
MIN Size 20 Min Price 98 Max Price 100
276
Size Min Price Max Price
276b
281
Submit Agent
280
The Bid Ask Spread for CUSIP: 257AJ7
Bid Price Bid Size Ask price Ask Size
Price 100
281a
Powered by SKG Negotiation Engine
Start Engine
Done
Internet

FOB290 9th0th360

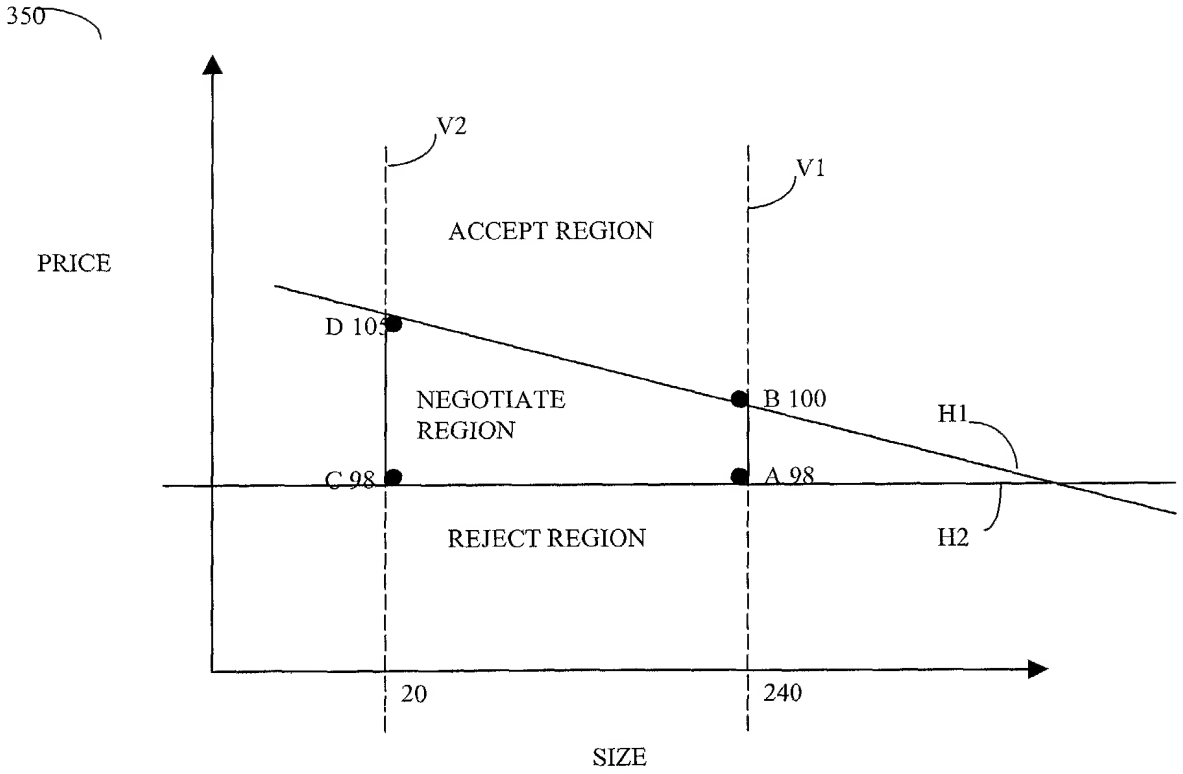


FIGURE 14

200d

FIGURE 15

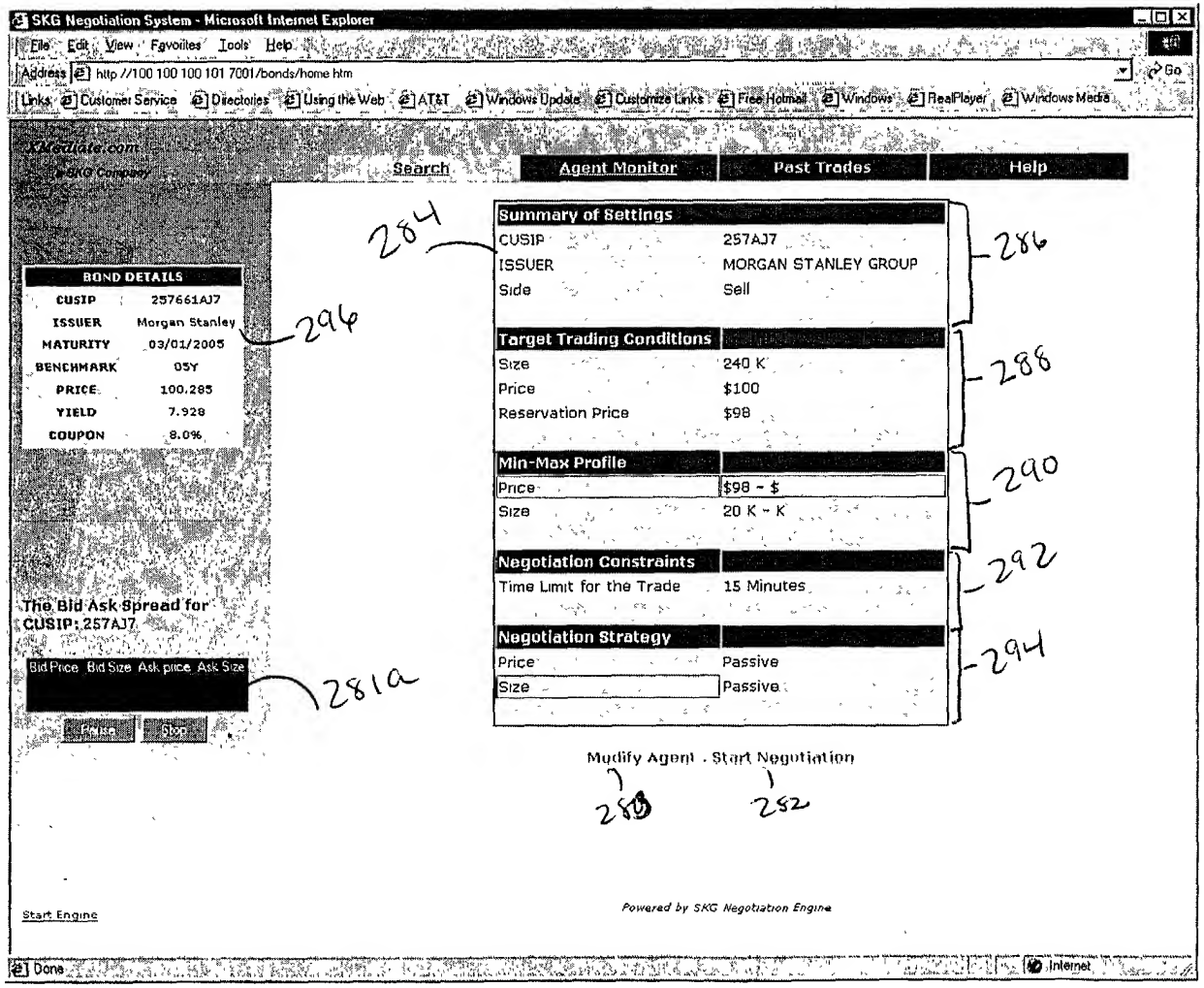
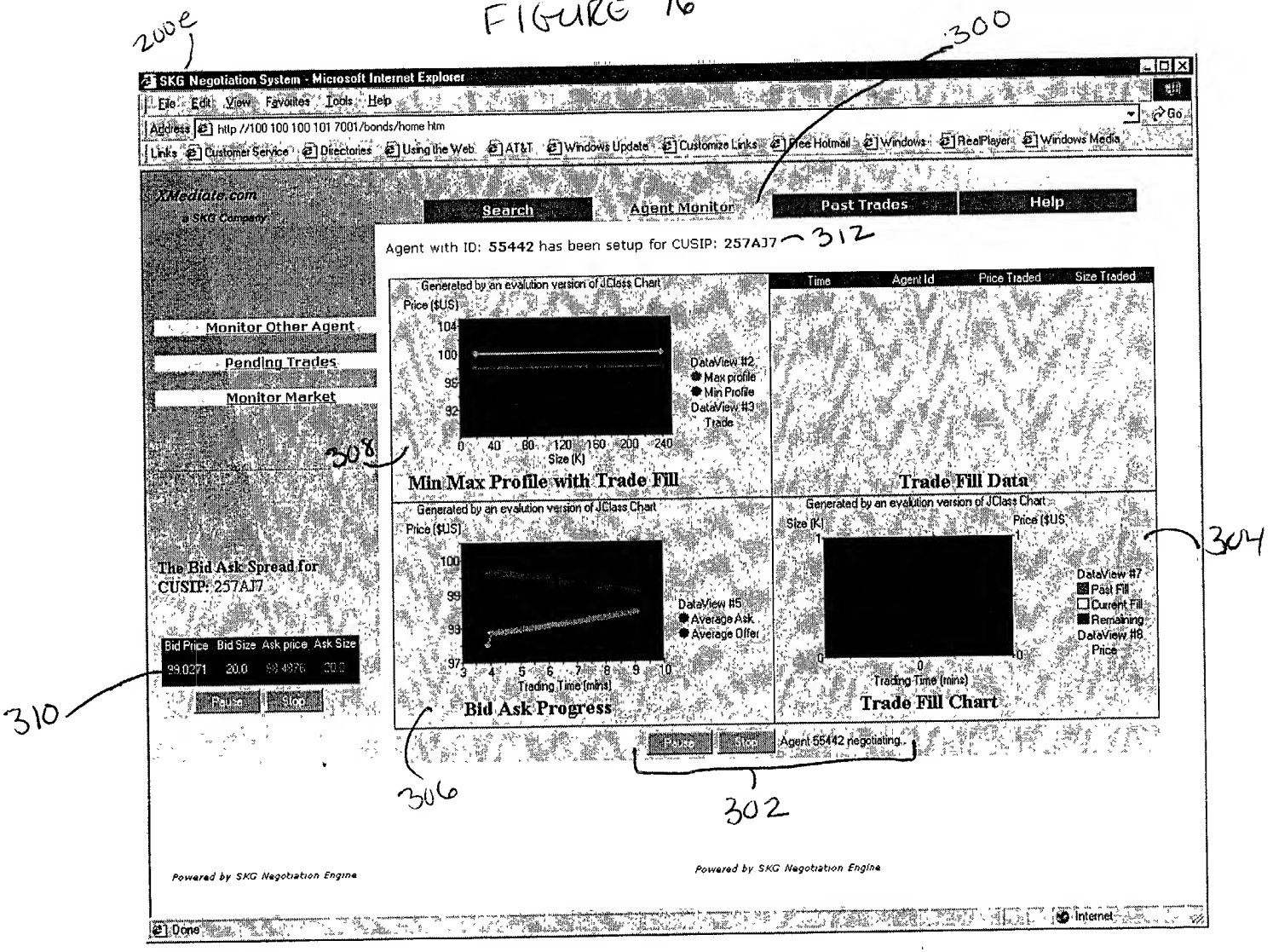


FIGURE 16


200e
300
SKG Negotiation System - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://100.100.100.101:7001/bonds/home.htm
Links Customer Service Directories Using the Web AT&T Windows Update Customize Links Free Hotmail Windows RealPlayer Windows Media
XMediate.com
a SKG Company
Search
Agent Monitor
Past Trades
Help
Agent with ID: 55442 has been setup for CUSIP: 257AJ7
312
Monitor Other Agent
Pending Trades
Monitor Market
308
Generated by an evalution version of JClass Chart
Price ($US)
DataView #2
Max profile
Min Profile
DataView #3
Trade
Size (K)
Min Max Profile with Trade Fill
Time
Agent Id
Price Traded
Size Traded
Trade Fill Data
Generated by an evalution version of JClass Chart
Price ($US)
DataView #5
Average Ask
Average Offer
Trading Time (mins)
Bid Ask Progress
Generated by an evalution version of JClass Chart
Size (K)
Price ($US)
DataView #7
Past Fill
Current Fill
Remaining
DataView #8
Price
Trading Time (mins)
Trade Fill Chart
304
The Bid Ask Spread for
CUSIP: 257AJ7
Bid Price
Bid Size
Ask price
Ask Size
99.0271
20.0
20.0
Pause
Stop
310
306
Pause
Stop
Agent 55442 negotiating..
302
Powered by SKG Negotiation Engine
Powered by SKG Negotiation Engine
Done
Internet

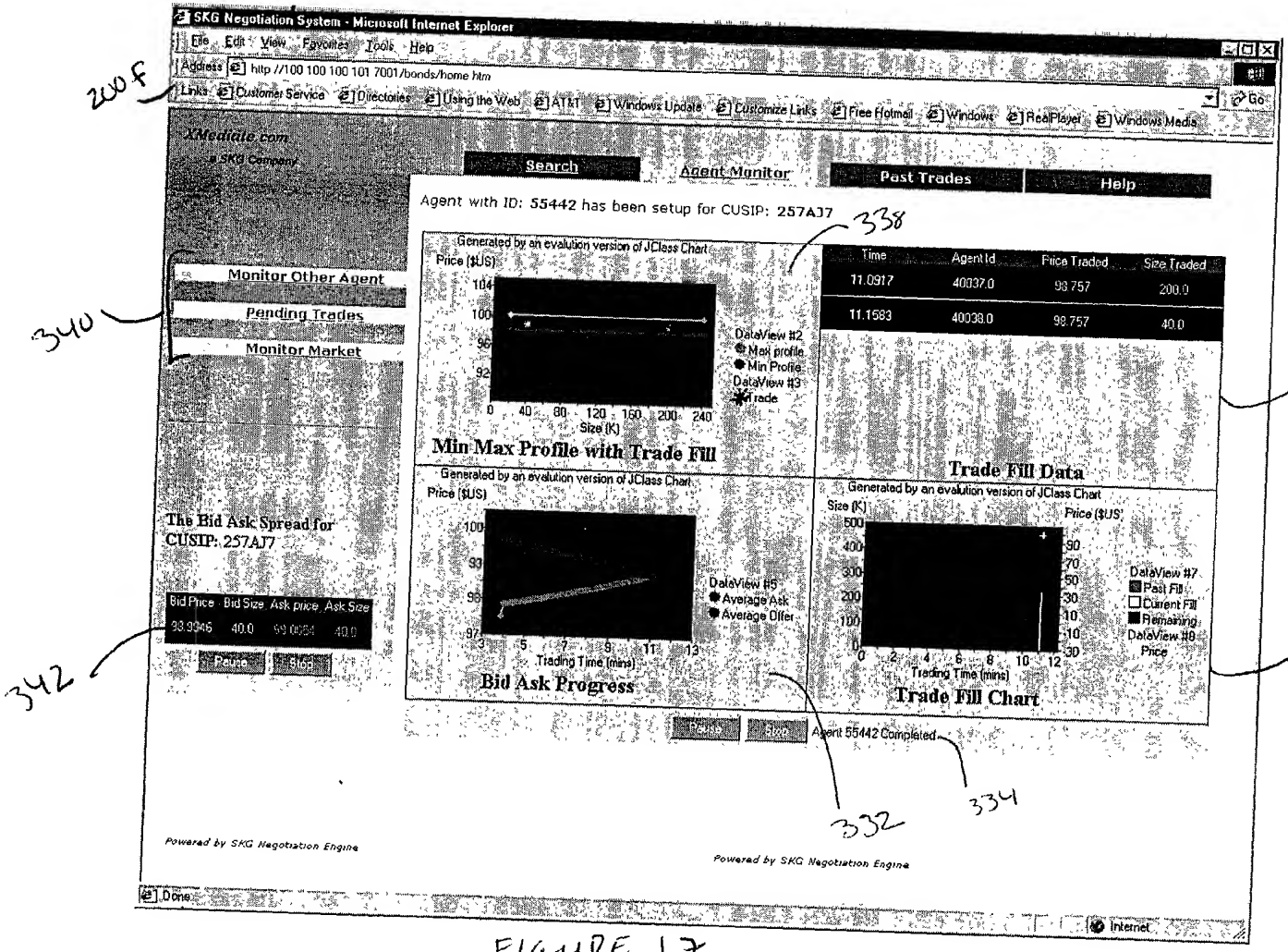

SKG Negotiation System - Microsoft Internet Explorer
200f
XMediate.com
a SKG Company
Search
Agent Monitor
Past Trades
Help
Agent with ID: 55442 has been setup for CUSIP: 257AJ7
338
Monitor Other Agent
Pending Trades
Monitor Market
340
Generated by an evalution version of JClass Chart
Price ($US)
Size (K)
DataView #2
Max profile
Min Profile
DataView #3
Trade
Min Max Profile with Trade Fill
Time
Agent Id
Price Traded
Size Traded
11.0917
40037.0
98.757
200.0
11.1583
40038.0
98.757
40.0
336
Trade Fill Data
The Bid Ask Spread for
CUSIP: 257AJ7
Bid Price
Bid Size
Ask price
Ask Size
98.9046
40.0
99.0054
40.0
342
Trading Time (mins)
DataView #5
Average Ask
Average Offer
Bid Ask Progress
DataView #7
Past Fill
Current Fill
Remaining
DataView #8
Price
330
Trade Fill Chart
Agent 55442 Completed
332
334
Powered by SKG Negotiation Engine
Powered by SKG Negotiation Engine
Done
Internet

FIGURE 17

US8290819 Method

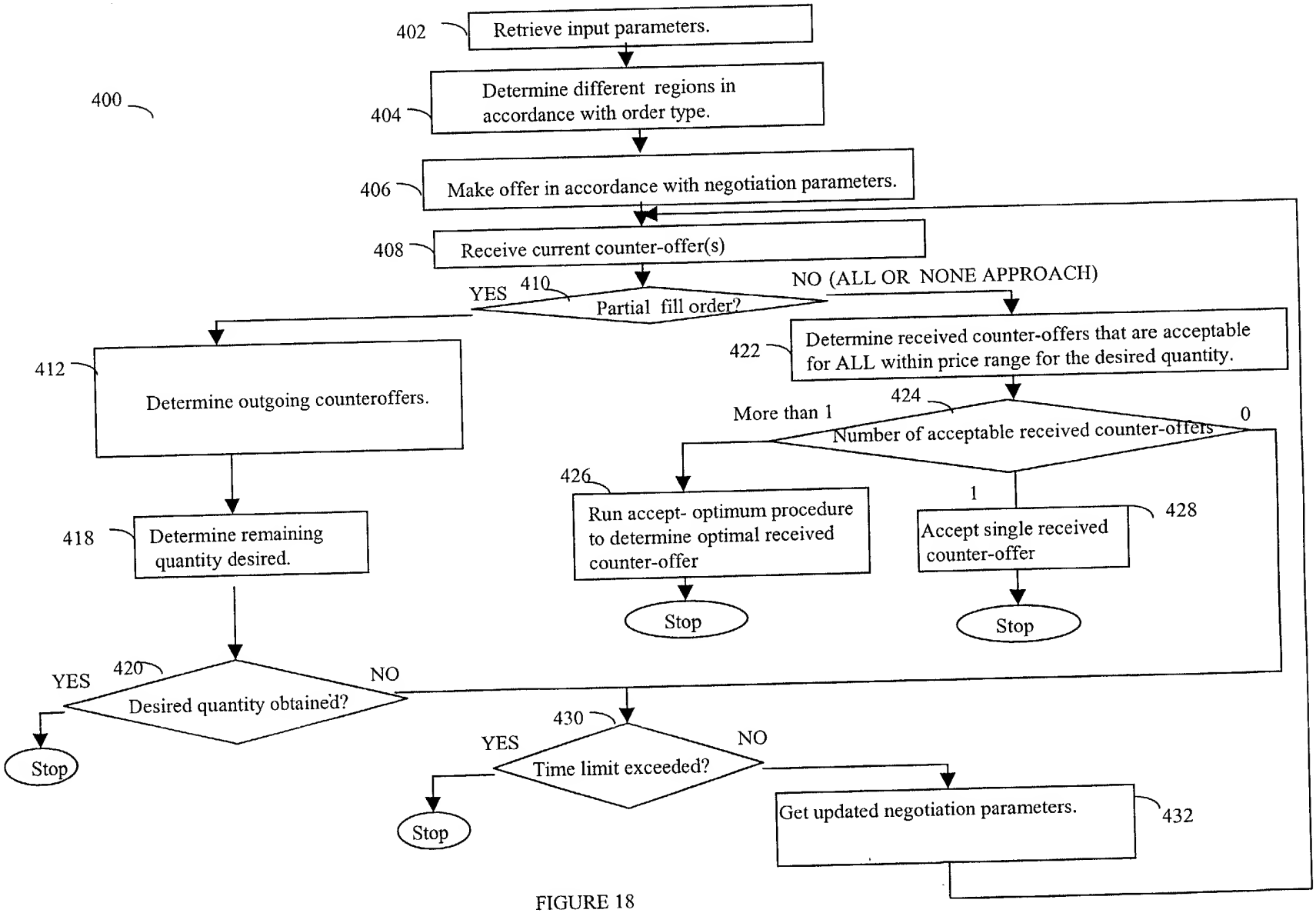


FIGURE 18

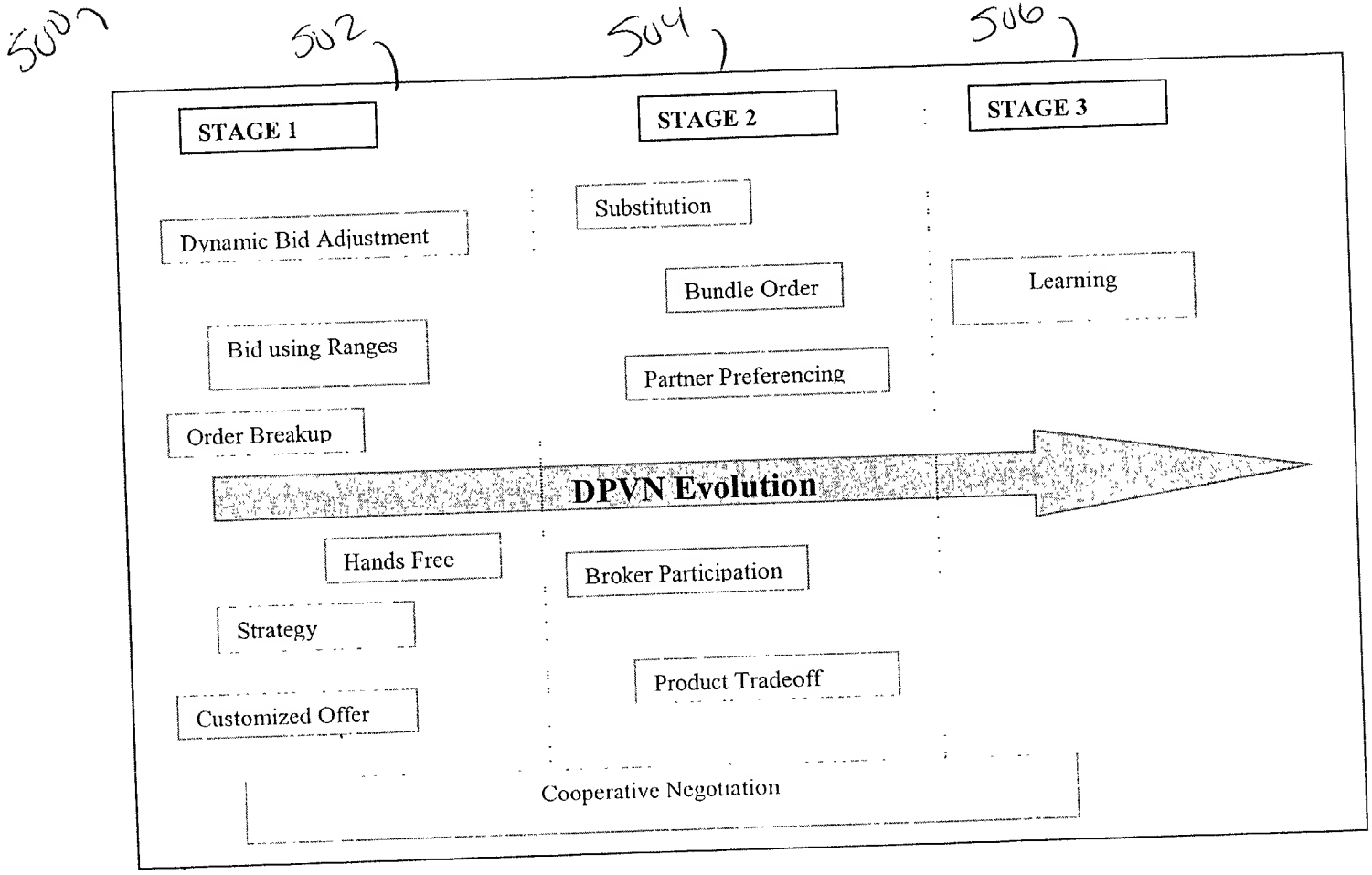

500
502
504
506
STAGE 1
STAGE 2
STAGE 3
Dynamic Bid Adjustment
Substitution
Bundle Order
Learning
Bid using Ranges
Partner Preferencing
Order Breakup
DPVN Evolution
Hands Free
Broker Participation
Strategy
Product Tradeoff
Customized Offer
Cooperative Negotiation

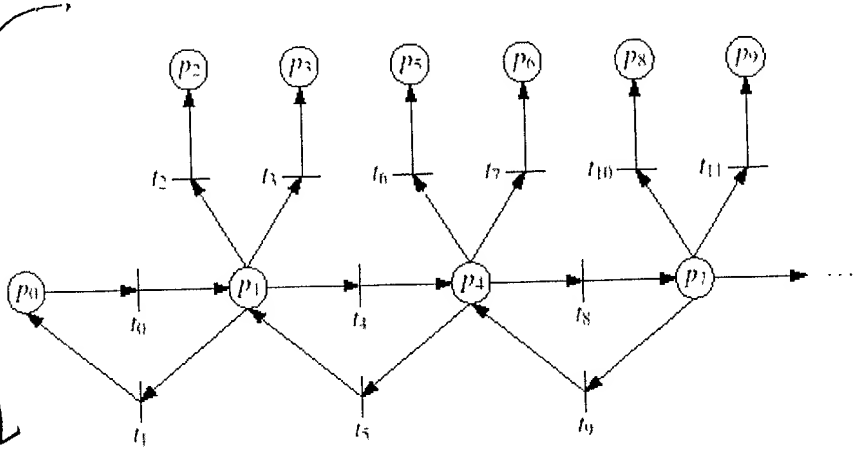
FIGURE 19

T08280 9th0th860

520

FIGURE 20

524



. Trading Negotiation Procedure

522

t_0 = seller:offer	t_1 = seller:revoke	t_2 = buyer:reject
t_3 = buyer:accept	t_4 = buyer:counter-offer	t_5 = buyer:revoke
t_6 = seller:reject	t_7 = seller:accept	t_8 = seller:counter-offer
t_9 = seller:revoke	t_{10} = buyer:reject	t_{11} = buyer:accept

p_2, p_5, p_8 = no trading

p_3, p_9 = trading with seller's offer

p_6 = trading with buyer's offer

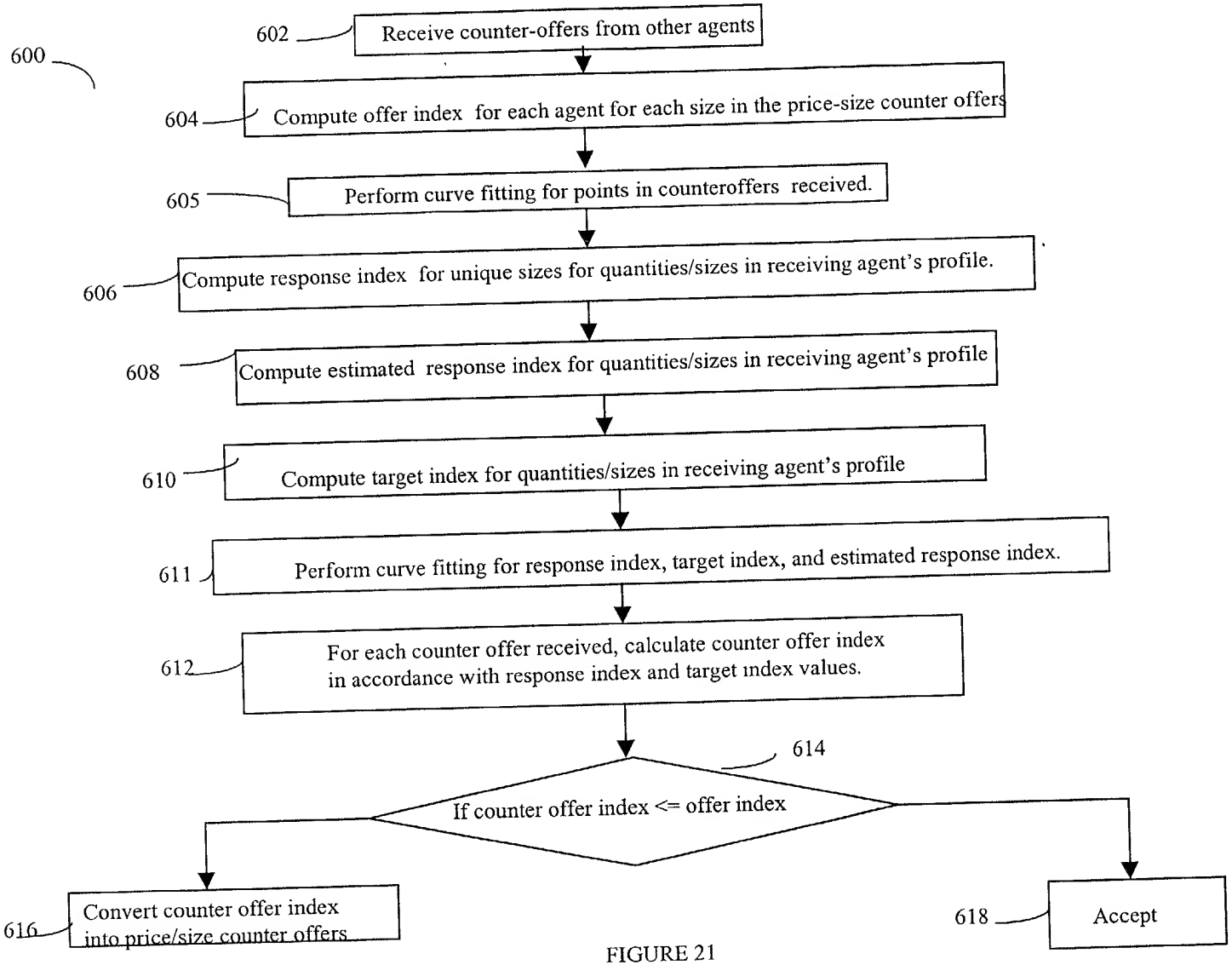


FIGURE 21

09840446 .052801

TOP280 9th0n860

700

CASE 1:	Offer index > target index AND offer index > response index
CASE 2:	Offer index > target index AND offer index < response index
CASE 3:	target index > offer_index AND target index < response index
CASE 4:	offer index > response index AND offer index < target index
CASE 5:	offer index < response index AND response index < target index

FIGURE 22

800

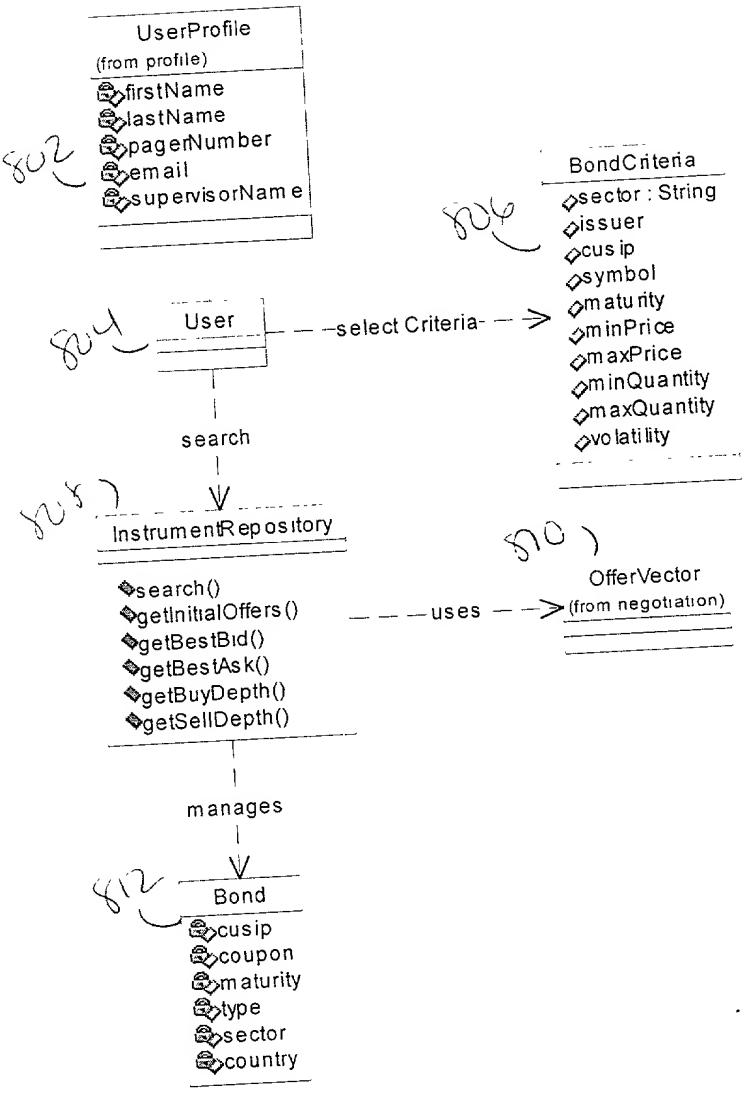


FIGURE 23

05640450 - 052804

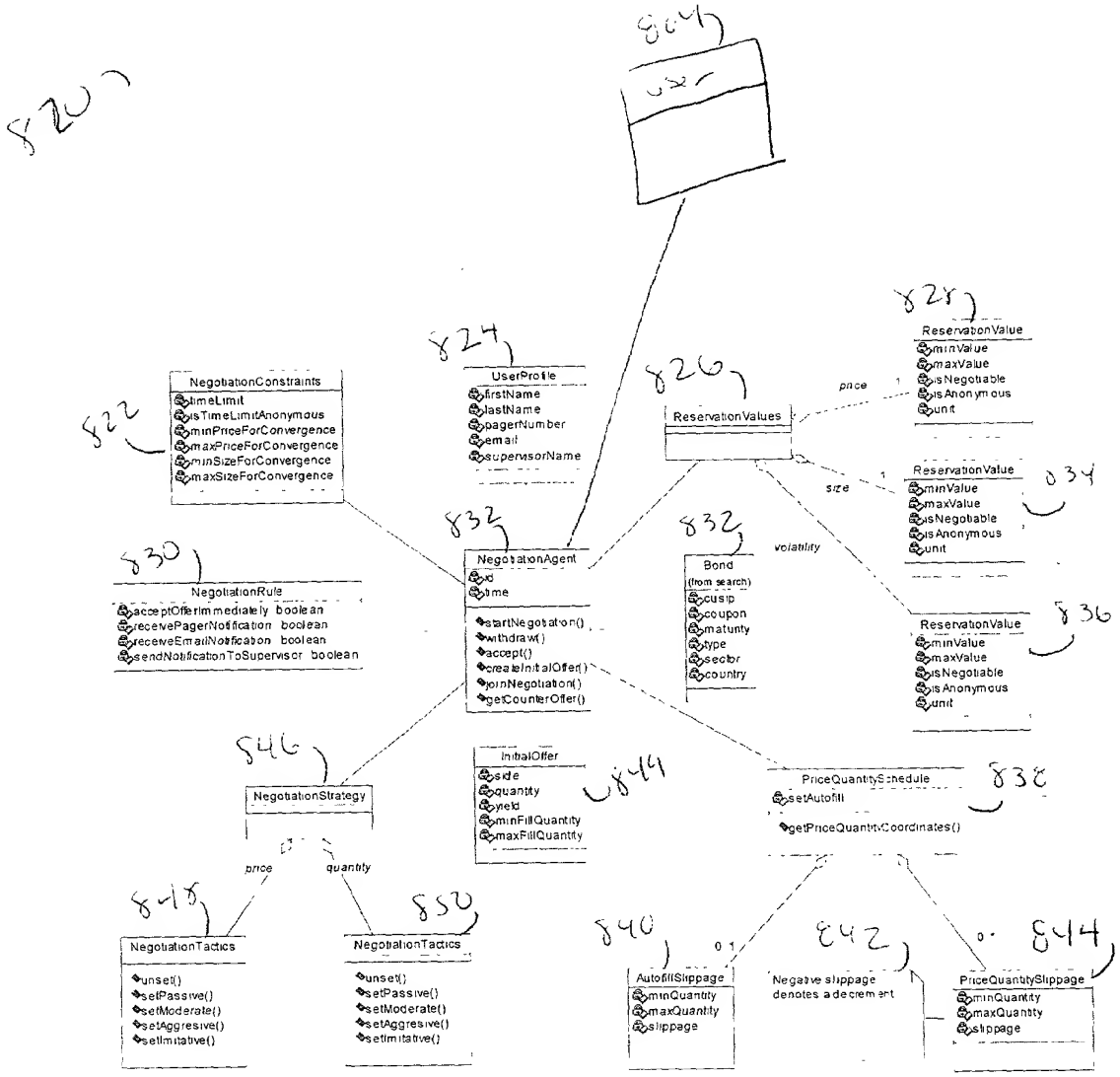

820
User
824
UserProfile
firstName
lastName
pagerNumber
email
supervisorName
822
NegotiationConstraints
timeLimit
isTimeLimitAnonymous
minPriceForConvergence
maxPriceForConvergence
minSizeForConvergence
maxSizeForConvergence
826
ReservationValues
price
size
828
ReservationValue
minValue
maxValue
isNegotiable
isAnonymous
unit
834
ReservationValue
minValue
maxValue
isNegotiable
isAnonymous
unit
836
ReservationValue
minValue
maxValue
isNegotiable
isAnonymous
unit
830
NegotiationRule
acceptOfferImmediately boolean
receivePagerNotification boolean
receiveEmailNotification boolean
sendNotificationToSupervisor boolean
832
NegotiationAgent
id
time
startNegotiation()
withdraw()
accept()
createInitialOffer()
joinNegotiation()
getCounterOffer()
832
Bond
(from search)
cusip
coupon
matunty
type
sector
country
volatility
846
NegotiationStrategy
price
quantity
844
InitialOffer
side
quantity
yield
minFillQuantity
maxFillQuantity
838
PriceQuantitySchedule
setAutofill
getPriceQuantityCoordinates()
848
NegotiationTactics
unset()
setPassive()
setModerate()
setAggresive()
setImitative()
850
NegotiationTactics
unset()
setPassive()
setModerate()
setAggresive()
setImitative()
840
AutofillSlippage
minQuantity
maxQuantity
slippage
842
Negative slippage
denotes a decrement
844
PriceQuantitySlippage
minQuantity
maxQuantity
slippage

FIGURE 24

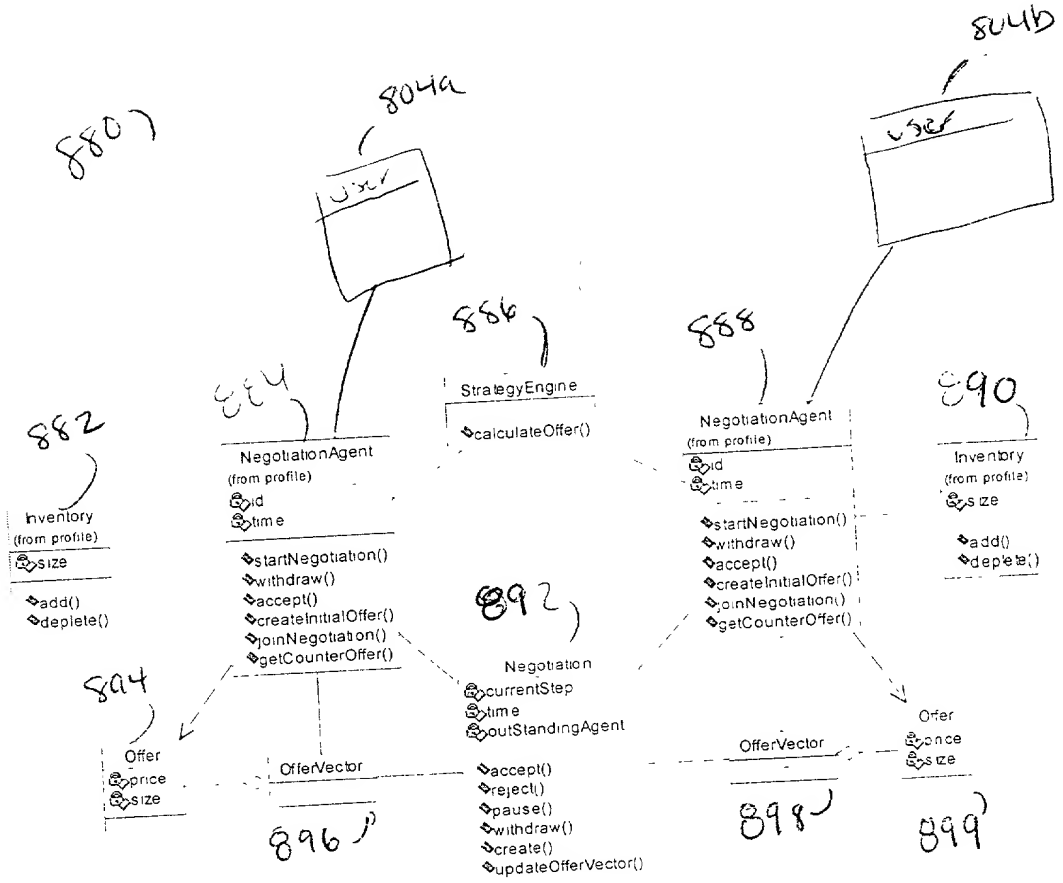

880
804a
User
804b
User
886
888
890
882
Inventory
(from profile)
size
add()
deplete()
NegotiationAgent
(from profile)
id
time
startNegotiation()
withdraw()
accept()
createInitialOffer()
joinNegotiation()
getCounterOffer()
StrategyEngine
calculateOffer()
NegotiationAgent
(from profile)
id
time
startNegotiation()
withdraw()
accept()
createInitialOffer()
joinNegotiation()
getCounterOffer()
Inventory
(from profile)
size
add()
deplete()
892
Negotiation
currentStep
time
outStandingAgent
accept()
reject()
pause()
withdraw()
create()
updateOfferVector()
894
Offer
price
size
OfferVector
896
OfferVector
898
Offer
price
size
899

FIGURE 25